

Aug 29, 2014

Problem st

Formally define the problem

Includes defn of "good" route

Break up problem into modules

Specify input format

Determine databases/libraries needed/gps

Design an algorithm

Analyze your algorithm

Data structures to use

Determine how to "talk" to different sources/modules

Specification for ~~display~~ UI/output

Pick prog. lang.

Code it up

Incorporate OS specific restrictions

Test your code/exception handling

Maintain (& update) local info

Incorporate user feedback

memory/energy/communication management

Push out new versions

iPad app

## Problem statement (1st attempt)

Assign applicant (from set  $A$ ) to employers (from set  $E$ ) in a "stable" way. I.e.  $\forall e \in E, \forall a \in A$   
s.t.  $a$  is not assigned to  $e$   
EITHER

- (i)  $e$  prefers her current assigned applicants to  $a$   
OR  
(ii)  $a$  prefers her employer(s) to  $e$ .
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Q1) How do we specify preferences?  
(pref list)

Q2) What is the ratio  $\frac{|A|}{|E|}$

Q3) What is an assignment?

Q4) Can an employer have  $> 1$  employee?

Q5) ——— employee ——— employer?

Q6) How many employer/applicant per preference list

Q7) Does every applicant have  $\geq 1$  employer?

Q8) ——— employer ——— applicant?